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A New Nematode Pest of Azalea in Florida

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In November, 1965, forcing type azalea plants (Rhododendron sp.) with necrotic areas on the stems and leaves were received by the Plant Pathology Section from a Florida nursery. While examining a stem-lesion section under the microscope Mr. A. P. Martinez noted some spear-bearing nematodes and submitted them to the Nematology Section. Identification of these nematodes revealed them to be foliar nematode (Aphelenchoides fragariae (Ritzema Bos, 1890) Christie, 1932). Foliar nematodes were dissected from leaf, stem and petiole tissue of affected plants. This was the first time these pests have been found infesting azalea.

SYMPTOMATOLOGY:

LEAVES: In early stages of the disease, affected leaf areas are a light greenish brown. At later stages affected areas are dark brown to blackish brown. Occasionally light brown areas partially or totally border affected areas. In general, the necrotic areas are bounded by leaf veins. In some cases, the veins are overrun by lesions and the interveinal area is partially necrotic (Fig. 1-E). Isolated necrotic spots of various sizes appear on some leaves (Fig. 1-A, C & D). A number of leaves on severely affected plants are 1/3 to almost totally lesioned (Fig. 1-D, E & F). Leaf chlorosis, or a yellow margin around the necrotic area, has not been associated with this disease.

STEM: The brownish black stem lesions are 1/4 inch to 3 inches long and 1/16 inch to 1/8 inch wide. Some stem lesions extend below the soil line. Affected stem tissue occurs on the second stem growth below the shoot terminals.

DISCUSSION:

The economic potential of foliar nematodes infesting azalea is unknown. It is a fact that infected plants exhibit severe injury and could be considered unsaleable. At present the disease appears to be restricted to a single locality. Affected plants in this locality are under quarantine and a number of them have been destroyed by the grower.

No control is known at present that will eradicate the nematode and spare the plant in this new situation. Chemicals that have controlled foliar nematode on other plants, in addition to some other chemicals, are being tried by the grower.

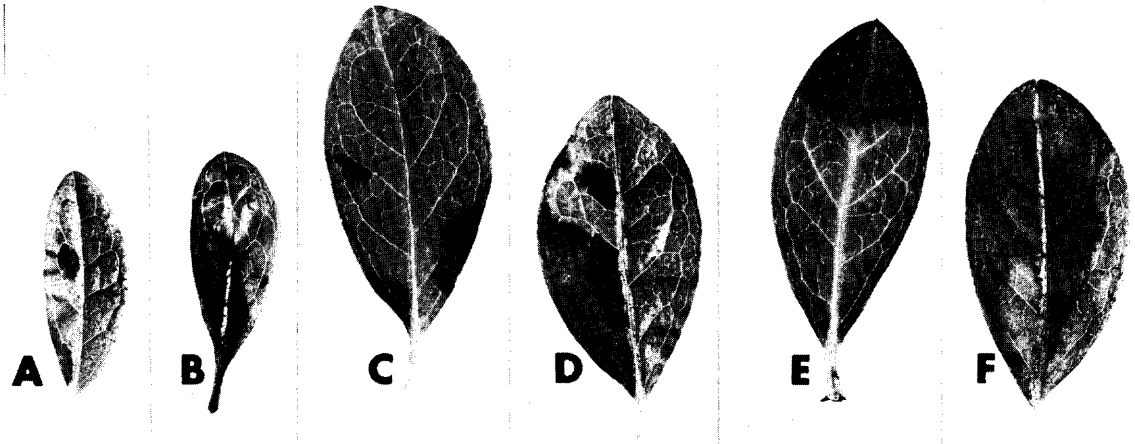

Fig. 1. Leaves of azaleas infected with foliar nematode (Aphelenchoides fragariae).